

FLEXIBLE ACTIVE SIGNAL CABLE**Abstract of the Disclosure**

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A flexible active signal cable (100, 200) includes a flexible printed circuit substrate (105), two electrical connectors (110), at least two metal conductors (115), at least one flexible optical waveguide (120), an optical transmitter (125),
10 and an optical receiver (130). In some embodiments, the flexible active signal cable is less than 0.5 meters long and is capable of being wrapped and unwrapped from a 5 millimeter diameter mandrel 10,000 times with a low probability of failure at a test temperature, while supporting data rates greater than 25 megabits per second.

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